

REMARKS

In response to the Office Action dated March 22, 2006, the following arguments are presented. Claims 1-27 are canceled and new claims 28-51 are presented. No new matter is introduced in the amended claims. Reexamination and reconsideration of the amended claims as requested is respectfully requested.

On page 2 of the Office Action, the Examiner objects to the drawings. Applicant encloses herewith, 19 sheets of replacement drawings

On page 4 of the Office Action, claims 24-26 are objected to because of informalities. Applicant has added new claims 28-51 and respectfully requests the Examiner withdraw the objections.

On page 4 of the Office Action, claims 1-17 and 26 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Halyak (US 5,928,133) in view of Amano (US 6,126,595). Applicant respectfully traverses this rejection.

New independent claim 28 provides, *inter alia*, for a heart rate variability monitor comprising a processor that monitors and analyzes digital signal data for a defined period of time obtained from a user's body and calculates parameters based on the digital signal data. These calculated parameters comprise the mean digital signal value and at least one standard deviation thereof. In this manner, the present invention evaluates heart rate and the variability thereof using a set of threshold parameters that account for the user's physiological state, including conditions abnormalities and/or idiosyncrasies, transient or not, that affect the heart rate or its variability, present at the time of the test. As a result, the present invention provides an individualized approach based upon the user's current physical status which may change over a small period of time, i.e., minutes, or over a long period of time, i.e., months or years.

Halyak, by contrast, teaches a threshold that is preselected or predetermined by the user and, by definition, cannot accommodate any physiological conditions, etc., of the user that may affect or impact heart rate or its variability. As a result, Halyak fails to suggest a non-predetermined user selected threshold value. Amano fails to cure Halyak's defects in this regard.

Moreover, neither Halyak nor Amano teach or suggest evaluation of a user's heart rate variability. Halyak simply evaluates trending of a patient's bodily resistance over time. This is not suggestive of the present invention's focus on heart rate variability (HRV), i.e., the analysis of the periodicity of the patient's heart rate on a beat-to-beat basis. Thus, Halyak's disclosure can only extrapolate a trend of data. In contrast, the present invention establishes actual parameters and evaluates actual beat-to-beat variability data against those actual parameters. As a result, the present invention is far more precise and accurate than is Halyak.

Accordingly, Applicant is of the opinion that new independent claim 28 is inventive in light of the art cited in the Office Action. New claims 29-51 are dependent upon claim 28 and, as a result, are also allowable over the cited art.

Applicant respectfully requests the Examiner withdraw the rejection of claims 1-17 and 26 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Halyak in view of Amano.

On page 11 of the Office Action, claims 18-19 and 27 are rejected under U.S.C. § 103(a) as being unpatentable over Halyak in view of Amano as applied to claims 1-17 in view of Atlas (US 6,265,978). Applicant respectfully traverses this rejection.

Atlas fails to cure the defects of the combination of Halyak and Amano as discussed above. As a result, Applicant believes that new claims 28-51 are allowable over the prior art.

Applicant respectfully request the Examiner withdraw the rejection of claims 18-19 and 27 are rejected under U.S.C. § 103(a) as being unpatentable over Halyak in view of Amano as applied to claims 1-17 in view of Atlas.

On page 15 of the Office Action, claims 20-22 are rejected under U.S.C. § 103(a) as being unpatentable over Halyak in view of Amano as applied to claims 1-17 in view of Gomes (US 4,570,637). Applicant traverses this rejection.

The defects of Halyak and Amano both individually and in combination are discussed above. Gomes fails to cure these defects. As a result, Applicant believes that new claims 28-51 are allowable over the prior art.

Applicant respectfully request the Examiner withdraw the rejection of claims 20-22 are rejected under U.S.C. § 103(a) as being unpatentable over Halyak in view of Amano as applied to claims 1-17 in view of Gomes.

On page 16 of the Office Action, claims 20-22 are rejected under U.S.C. § 103(a) as being unpatentable over Halyak in view of Amano as applied to claims 1-17 in view of Lind (US 6,889,165). Applicant traverses this rejection.

The defects of Halyak and Amano, both individually and collectively, are discussed above. Lind discloses a sensor and, as a result, fails to cure the defects of Halyak and Amano. As a result, Applicant believes that new claims 28-51 are allowable over the prior art.

Applicant respectfully request the Examiner withdraw the rejection of claims 23-25 are rejected under U.S.C. § 103(a) as being unpatentable over Halyak in view of Amano as applied to claims 1-17 in view of Lind.

CONCLUSION

In view of the amendments and reasons provided above, it is believed that all pending claims are in condition for allowance. The amendments clarify the patentable invention without adding new subject matter. Applicant respectfully requests favorable reconsideration and early allowance of all pending claims.

If a telephone conference would be helpful in resolving any issues concerning this communication, please contact Applicant's attorney of record, Jeffrey R. Stone at 952 253-4130.

Respectfully submitted,

Altera Law Group, LLC
Customer No. 22865

Date: September 28, 2006

By:


Jeffrey R. Stone
Reg. No. 47,976
JRS/mej